**Water Quality Research**

**Directions:** Use the class notes and the resources listed below to answer the following questions.

1. What is potable water and why is it important to have this type of water?
2. What are factors that can affect water quality?
3. What physical test could you perform to determine if your water is of good quality?
4. What chemical tests could you perform to determine if your water is of good quality?
5. What are the steps in water treatment?
6. What additional processes does water have to go through before it can be drank?
7. Draw a picture showing the steps water goes through when it is treated.
8. Using some of the resources given, find the information to fill in the chart below.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Substance | Description of Substance | Acceptable level | Source of Subtance | Health Risks |
| Lead |  |  |  |  |
| Mercury |  |  |  |  |
| Colriform |  |  |  |  |
| Arsenic |  |  |  |  |
| Turbitiy |  |  |  |  |
| Sulfur |  |  |  |  |
| Chlorine |  |  |  |  |
| Carbon Dioxide |  |  |  |  |
| Hydrogen sulfide |  |  |  |  |
| Nitrates |  |  |  |  |
| Nitrites |  |  |  |  |
| Chlorine |  |  |  |  |
| Copper |  |  |  |  |
| Flouride |  |  |  |  |
| Dissolved Solids |  |  |  |  |
| Zinc |  |  |  |  |
| Barium |  |  |  |  |
| Sodium |  |  |  |  |
| Hardness |  |  |  |  |

***Additional Resources***

<http://www.lenntech.com/water-purification-steps-faq.htm>

<http://www.bcwater.org/waterfacts/wastewatertreatment.asp>

<http://www.bcwater.org/waterfacts/waterpurification.asp>

<http://ga.water.usgs.gov/edu/wwvisit.html>

<http://en.wikipedia.org/wiki/Water_treatment>

<http://water.epa.gov/learn/kids/drinkingwater/watertreatmentplant_index.cfm>

<http://www.lenntech.com/water-treatment.htm>

<http://www.cyber-nook.com/water/index.html>

<http://www.epa.gov/waterscience/standards/>

<http://water.epa.gov/scitech/swguidance/waterquality/standards/criteria/index.cfm>